



Annual Performance Report Form

Facility Name: DuPont Company - Spruance Plant

Performance Track ID #: A03-0022

Annual Performance Report #: 1

Reporting Year: 2001

Due Date: 4/1/2002

Section A

General Facility Information

To the extent possible, EPA will pre-complete items A.1-A.8 for you. Please ensure that the information in A.1-A.8 below is accurate, complete, and up to date. Please supply or revise any information as necessary and then check the box to the left of the item(s) to indicate where changes have been made. Items A.9 and A.10 cannot be pre-completed; please respond as directed in A.9 and A.10 below.

Did you make changes? If so, check box.

- A.1 ☐ Name of your facility: Spruance Plant
- A.2 ☐ Name of your parent company: E.I. duPont deNemours and Co., Inc.
- A.3 ☐ Facility contact person for the Performance Track program:
Name: Mr./Mrs./Ms./Dr. Mr. Robert L. Dunn
Title: Environmental and Community Affairs Manager, DuPont Virginia
Phone: (804) 383-3895 Fax: (804) 383-3785 E-mail: Robert.L.Dunn@usa.dupont.com
- A.4 ☐ Facility's location: Richmond, Va.
Street Address: 5401 Jefferson Davis Highway
Street Address (cont.):
City/State/Zip Code: Richmond, Va. 23234
- A.5 ☐ Facility's website address (if any): <http://www.dupont.com/virginia/spruance/spruance.html>
- A.6 ☐ Number of employees (full-time equivalents) who currently work in the facility: 2550
- A.7 ☐ Does your company meet the Small Business Administration definition of a small business for your sector? ☐ Yes ☒ No
- A.8 ☐ North American Industrial Classification System (NAICS) Code(s) that are used to classify business at the facility: 325222 325211 31323
- A.9 ☐ In your application and, perhaps, in previous annual performance reports, you described what your facility does or makes. Have there been any (additional) changes to your facility's list of products and/or activities? If so, please list them in the space below. ☐ Yes ☒ No
- A.10 ☐ Please update the list of environmental requirements that apply to your facility. In the space below, indicate any changes that have taken place during this reporting period. If you have no changes to report, please write "No changes."
- No changes

Section B

Environmental Management System

B.1 Environmental Management System Assessment. Please summarize EMS assessments conducted *during the year*. Attach additional sheets as necessary.

- a. Was an EMS audit or other assessment done by an independent third party?

☐ Yes ☒ No

If yes, please provide the *type* (e.g., ISO 14001 certification), the *scope*, and the *dates* (mo/yr) of each assessment.

- b. Was an internal or corporate EMS audit conducted? ☐ Yes ☒ No

If yes, please provide the *scope* and the *dates* (mo/yr) of each audit.

Corporate 2nd party audit is scheduled for later this year (4th Quarter).

- c. Was a compliance audit conducted? ☒ Yes ☐ No

If yes, please provide the *scope* and the *dates* (mo/yr) of each audit, and indicate *who* conducted the audit(s) (e.g., facility staff, corporate groups, third party).

Approximately 20 first party audits (at least once/month) have been conducted by Site Environmental in conjunction with the various business and support areas on the site. These audits focus on the various environmental media and on compliance with all applicable regulations, standards as well as waste minimization and pollution prevention efforts.

- d. (Optional) If you would like to describe any other audits or inspections that were conducted at your facility, please do so here.

On 3/12-13, an EPA unannounced RCRA audit was conducted. No major deficiencies were noted in respect to overall management systems.

Section B

(continued)

B.1

e. Briefly summarize corrective actions taken and other improvements made as a result of your EMS assessments and compliance audits.

A summary of corrective actions taken as well as some examples of improvements made as a result of EMS assessments and compliance audits are as follows:

Improved recordkeeping, improving annual dike/curb inspections, improved follow-up of audit recommendations, waste pad and dike surface crack repairs, developed/improved written procedures, upgraded training procedures, improved housekeeping/order/arrangement of waste storage areas, improved management procedures for completing incident reports, improved waste aerosol can disposal, ensuring drum waste management systems such as labeling, training, inspections, and documentation are being conducted in a required manner, a 30% reduction in environmental incidents compared to year 2000, two major sewer segments were upgraded to assure optimum performance, improved the operating efficiency of the waste water treatment system through utilization of cooling towers to reduce utilization and treatment of once-through cooling water, improved method of DuPont and contractor lab data to our central database resulting in less transcription errors and more timely response to potential water quality issues, standardized the sanitary sewer pump station design to improve operating efficiency and maintenance and added a full-time chemist to the laboratory quality control function to allow improved compliance with water quality control testing needs.

f. Has your facility corrected all instances of potential non-compliance and EMS non-conformance identified during your audits and other assessments?

☐ Yes ☒ No ☐ No such instances identified

If no, please explain your plans to correct these instances.

All identified instances of potential non-compliance and EMS non-conformance identified are monitored on a routine basis until they are completed. Some items are identified as long-term, meaning they may take longer than 90 days to complete. A discussion of such items is a regular/routine agenda topic at our monthly Site Environmental Leadership Team meetings.

g. When was the last Senior Management review of your EMS completed? *mo/yr* 11/27/01

Who headed the review?

Name: Mr./Mrs./Ms./Dr. Mr. Robert L. Dunn

Title: Environmental and Community Affairs Manager

Section B

(continued)

B.2 ISO 14001 Certification. Is your facility currently certified to ISO 14001? ☐ Yes ☒ No

B.3 Environmental Aspects Identification. When did your facility last conduct a systematic identification and/or review of your environmental aspects? *mo/yr* 9/2001

B.4 Progress Toward Achieving Objectives and Targets. In the table below, please provide a narrative summary of progress made toward EMS objectives and targets. **You may limit the summary to environmental aspects that are *significant* and towards which *progress* has been made during the *reporting year*.** In cases where progress relates specifically to a Performance Track performance commitment, complete the *Environmental Aspect* column, but in the *Progress* column simply refer to the performance commitment tables in Section C, i.e. "See Section C." Attach additional sheets as necessary.

<i>Environmental Aspect</i>	<i>Progress Made This Year</i> (e.g., quantitative or qualitative improvements, activities conducted)
Non-Hazardous Solid Waste (Kevlar® AFS)	Refer to performance commitment tables in Section C
EPCRA 313 Releases - Carbon Disulfide (Teflon® AFS)	Refer to performance commitment tables in Section C
Non-Hazardous Solid Waste (Nomex® AFS)	Refer to performance commitment tables in Section C
Hazardous Waste - Acid Crumb (Kevlar® AFS)	A Six Sigma program was initiated during the 4 th quarter of 2000 to reduce pounds of acid crumb at start-ups by 50%. This project has demonstrated good success in the reduction of acid crumb. Since this upgrade was made, numerous "no acid crumb" start-ups have been achieved.
Non-Hazardous Solid Waste - Kevlar® Pulp	Programs have been added to reduce off-specification pulp landfilling. By simplifying and improving pulp product grading, better use of off-specification pulp into alternate products was enabled. This reduced landfilling of off-specification pulp by 100,000 lbs/yr.
EPCRA 313 As Generated and Releases and Transfers (Nomex® AFS)	EPCRA 313 As Generated and Releases and Transfers continue to trend down. A significant decrease has been achieved compared with the 1995 base year. As of 2000, there has been a 55.8% decrease in EPCRA 313 As Generated and a 83% drop in EPCRA Releases and Transfers.

Section C

Environmental Performance Commitments

Please use the tables on pages 6-9 to summarize your facility's environmental performance against your Performance Track performance commitments. Complete only those boxes related to the baseline, current year, and performance commitment. If any of the boxes have been pre-completed for you, please verify the information. If you find information that is incorrect, cross it out and write in the correct information. **Leave blank any columns for future reporting years.**

C.1

Performance Commitment 1

a. Use this table to report data related to your first performance commitment.

Category (see page 16 of the instructions): Waste


Aspect (see page 16 of the instructions): Non-Hazardous Solid Waste (Kevlar® AFS) - This waste stream is completely separate and distinct from that described in section C.3. This particular waste stream is generated as a result of start-ups and shut-downs in the Kevlar® Polymer Area.

	<i>Baseline (as stated in your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance Commitment (the goal stated in your application)</i>
<i>Calendar Year</i>	2000	2001	2002	2003	
<i>Actual Quantity (per year)</i>	365,000	4,228			(optional)
<i>Measurement Units</i>	lbs				
<i>Normalizing Factor*</i>	1.0	1.084			(optional)
<i>Basis for your Normalizing Factor*</i>	Pounds of polymer produced				
<i>Normalized Quantity* (per year)</i>	365,000	3,900			180,000

*See pages 17-19 of the instructions for more information

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

A \$550M project to enable recycling of prepolymer waste generated during process start-ups and shutdowns was installed and commissioned in the 3Q2000. This program has been extremely successful in reducing this waste stream by almost 99%, well beyond the performance commitment.



c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

Section C

(continued)

C.2 Performance Commitment 2

a. Use this table to report data related to your second performance commitment.

Category (see page 16 of the instructions): Air Emissions/Waste					
Aspect (see page 16 of the instructions): EPCRA 313 Releases - Carbon Disulfide (Teflon® AFS)					
	<i>Baseline</i> (as stated in your application)	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance Commitment</i> (the goal stated in your application)
<i>Calendar Year</i>	1999	2001	2002	2003	
<i>Actual Quantity</i> (per year)	50,400	0			(optional)
<i>Measurement Units</i>	lbs				
<i>Normalizing Factor*</i>	1.0	1.051			(optional)
<i>Basis for your Normalizing Factor*</i>	Pounds of product produced				
<i>Normalized Quantity*</i> (per year)	50,400	0			0
*See pages 17-19 of the instructions for more information					

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

Carbon disulfide was replaced with a low hazard/toxicity spin matrix. The new spin matrix is in powder form. Use of carbon disulfide was discontinued as of 3/29/2000. This represents a significant achievement since it effectively eliminated a HAP emission as well as a source of hazardous waste.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

Section C

(continued)

C.3 Performance Commitment 3

a. Use this table to report data related to your third performance commitment.

Category (see page 16 of the instructions): Waste

Aspect (see page 16 of the instructions): Hazardous Waste (Kevlar® AFS. This waste stream is generated as a result of the Kevlar® spinning process and is completely separate and distinct from the waste stream described in section C.1.

	<i>Baseline (as stated in your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance Commitment (the goal stated in your application)</i>
<i>Calendar Year</i>	2000	2001	2002	2003	
<i>Actual Quantity (per year)</i>	2,620,592	2,812,801			(optional)
<i>Measurement Units</i>	lbs				
<i>Normalizing Factor*</i>	1.0	0.922			(optional)
<i>Basis for your Normalizing Factor*</i>	Pounds of spun product				
<i>Normalized Quantity* (per year)</i>	2,620,592	3,050,760			2,360,000

*See pages 17-19 of the instructions for more information

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

There was an increase vs. the base year (2000). It is believed this increase resulted from lower production rates resulting in less efficient operation, high employee turnover and the loss of a number of experienced operators. In a side but related note, discussions were held in late 2001 between DuPont Spruance and Virginia DEQ waste officials. Based on these discussions, State officials agreed with DuPont that the majority of this waste stream can be appropriately re-designated as non-hazardous industrial waste based on the physical characteristics of this material. This official re-designation will take effect in 2002 and will result in a significant decrease in the amount of hazardous waste generated by this area.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

Section C

(continued)

C.4 Performance Commitment 4

a. Use this table to report data related to your fourth performance commitment.

Category (see page 16 of the instructions): Waste

Aspect (see page 16 of the instructions): Non-Hazardous Solid Waste (Nomex® AFS)

	<i>Baseline (as stated in your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance Commitment (the goal stated in your application)</i>
<i>Calendar Year</i>	2000	2001	2002	2003	
<i>Actual Quantity (per year)</i>	196,320	171,784			(optional)
<i>Measurement Units</i>	lbs				
<i>Normalizing Factor*</i>	1.0	0.904			(optional)
<i>Basis for your Normalizing Factor*</i>	Production (in pounds produced)				
<i>Normalized Quantity* (per year)</i>	196,320	190,027			98,000
*See pages 15-17 of the instructions for more information					

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

A new polymer waste recycling system was installed which enables the recycling of drum and smaller containers of polymer/dimethylacetamide wastes. This new recycling system was started up during the 4Q2001.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

Section D

Public Outreach and Performance Reporting

D.1

Please briefly summarize the public outreach and reporting activities that your facility has conducted during the year. Feel free, but not obligated, to attach supporting materials (e.g., meeting agendas, public announcements).

DuPont Virginia Website (<http://www.dupont.com/virginia/spruance/spruance.html>)

Public Announcements Posted In Local Newspaper

Participation In Chesapeake Bay Businesses for the Bay, Friends of Chesterfield's Riverfront, Virginia Manufacturers Association Community Outreach and Environmental Affairs Committees

The Spruance Site has been certified by the Wildlife Habitat Council as a wildlife habitat area. Spruance must demonstrate, maintain, and meet outstanding commitment criteria. Renewal is now required every three years and is composed of extensive photographs, objectives and successes of ongoing programs.

In addition, DuPont Spruance employees are very active in a variety of community outreach activities such as the Salvation Army, Christmas In April, the Virginia State University Mathematics and Computer Science Partnership Program, Department of Conservation and Natural Resources Adopt-A-Stream Program, the Bensley Rescue Squad, Shepherd's Club, Adopt-A-School Program, Students Reaching Students, Inc., the annual United Way campaign, Big Brothers/Big Sisters Services, Inc., the Boy Scouts of America, the Girl Scouts of American, Take Your Daughters/Sons to Work Day, Habitat for Humanity, Girls in Science, First Robotics, Chesterfield County Public Education Foundation, Math and Science Center, Virginia Institute for Forensic Science and Medicine, John Tyler Community College and the YMCA.

D.2

Please indicate which of the following methods your facility plans to use to make its Performance Track Annual Performance Report available to the public. Please check as many as are appropriate.

☒ Website (URL <http://www.dupont.com/virginia/spruance/spruance.html>)

☐ Open House

☐ Meetings

☐ Press Releases

☒ Community Advisory Panel

☐ Other

Section E

Self-Certification of Continued Program Participation

On behalf of the DuPont Spruance Plant,
(name of my facility)

I certify that

- ◆ I have read and agree to the terms and conditions specified in *the National Environmental Performance Track Program Guide*. This facility, to the best of my knowledge, continues to meet all program criteria;
- ◆ I have personally examined and am familiar with the information contained in this Annual Performance Report. The information contained in this report is, to the best of my knowledge and based on reasonable inquiry, true, accurate, and complete;
- ◆ My facility has an environmental management system (EMS), as defined in the Performance Track EMS criteria, including systems to maintain compliance with all applicable federal, state, tribal, and local environmental requirements in place at the facility, and the EMS will be maintained for the duration of the facility's participation in the program;
- ◆ My facility has conducted an objective assessment of its compliance with all applicable federal, state, tribal, and local environmental requirements; and the facility has corrected all identified instances of potential or actual noncompliance; and
- ◆ Based on the foregoing compliance assessments and subsequent corrective actions (if any were necessary), my facility is, to the best of my knowledge and based on reasonable inquiry, currently in compliance with applicable federal, state, tribal, and local environmental requirements.

I agree that EPA's decision whether to accept participants into or remove them from the National Environmental Performance Track is wholly discretionary, and I waive any right that may exist under any law to challenge EPA's acceptance or removal decision.

I am the senior manager with responsibility for the facility and am fully authorized to execute this statement on behalf of the corporation or other legal entity whose facility is part of the National Environmental Performance Track program.

Signature/Date _____

Printed Name Mr./Mrs./Ms./Dr. Mr. Michael E. Mayberry

Title DuPont Spruance Plant Manager

Phone Number/E-mail Address (804) 383-2698/Michael.E.Mayberry@usa.dupont.com

Facility Name /Sruance Plant

Facility Street Address 5401 Jefferson Davis Highway, Richmond, Va. 23234

Performance Track Identification Number A03-0022

Paperwork Reduction Act Notice

The public reporting and recordkeeping burden for this collection of information is estimated to average 188 hours per respondent annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.